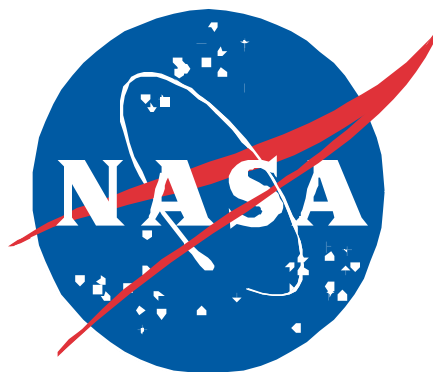


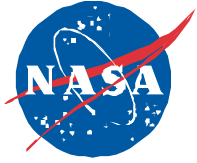
SHUTTLE LAUNCH OPPORTUNITIES

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Medium-class Explorers (MIDEX) AO Pre-Proposal Conference Space Shuttle Launch Opportunities

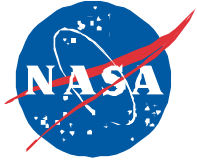
Stanley Nichols
Office of Space Access
NASA Headquarters
Friday, August 10, 2001



SHUTTLE USE POLICY

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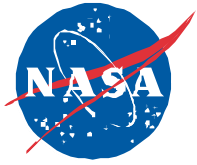
- 42 U.S.C. 2465a states that the Space Shuttle shall be used for purposes that
 - require the presence of man, (**human interaction**)
 - require the unique capabilities of the Space Shuttle or
 - when other compelling circumstances exist.
- Primary payloads must meet the above use policy.
 - Does not preclude the use of available cargo space, on a mission otherwise consistent with the policy, for secondary payloads that do not require **human interaction**



Shuttle Launch Opportunities

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- Funded Shuttle flights in FY-07 and -08
 - Current funded flight rate = 6/yr through FY-06
 - Anticipate that this funded rate will continue
 - 5 flights per year to the Space Station
 - One flight per year for other payloads
- **Spacecraft project responsible for funding costs** of upper stages or development of any new **unique** carrier that may be required.
- **Spacecraft project responsible for** any mission unique costs (e.g. special cabling necessary for electrical interfaces, unique flight design for non-standard inclination launches) must be included separately.



Shuttle Performance

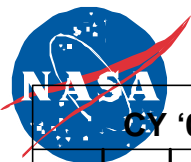
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- **Payload Size**

The capacity of the Space Shuttle is 38,000 pounds or greater depending on inclination and altitude. Secondary payloads generally do not exceed 8,000 pounds. Similarly, the shuttle payload bay volume (15' dia. x 60' long) is shared among the entire payload complement.

- **Orbits**

The Shuttle can carry payloads into orbits with an inclination ranging from 28.5 degrees to 57 degrees. Altitudes at which spacecraft and/or carriers can be deployed depend on a variety of factors but can vary from 110 nmi to over 300 nmi. Spacecraft and/or free flyers can carry orbit adjust systems to modify orbit parameters.



SHUTTLE MANIFEST

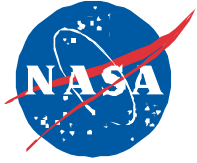


	CY '01			CY '02			CY '03			CY '04			CY '05			CY '06		
COLUMBIA				1/17 △ ¹⁰⁹ HST SM 3B	5/23 ◇ ¹⁰⁷ SPACEHAB Y/MEIDEX Y/SOLSE-2 Y/SOLCON U/CVX-2 M/LPT		2/20 ⊗ ¹¹⁶ X38 FLIGHT DEMO *	9/03 ◇ ⁹⁹⁹ DSP UNFUNDED		5/04 △ ¹²³ ◇ ¹²³ RM2 or S/HST-SM-4			3/05 ◇ ¹²⁸ △ ¹²⁸ S/HST-SM-4 or RM2			7/06 ○ ¹³⁷ OPP		
DISCOVERY	3/8 ● ¹⁰² ISS 5A.1	8/5 ○ ¹⁰⁵ ISS 7A.1 S/SIMPLESAT					5/30 ○ ¹¹⁸ ISS 13A	11/03 ○ ¹²⁰ ISS 15A		4/04 ○ ¹²² ISS 9A.1	8/04 ○ ¹²⁴ ISS J/A		1/05 ○ ¹²⁶ ISS UF3	5/05 ○ ¹²⁹ ISS UF4	9/05 ○ ¹³¹ ISS UF5 MPLM	2/06 ○ ¹³⁴ ISS		
ATLANTIS	2/7 ● ⁹⁸ ISS 5A	7/12 ○ ¹⁰⁴ ISS 7A		2/28 ○ ¹¹⁰ ISS 8A	7/11 ○ ¹¹² ISS 9A	11/21 ○ ¹¹⁴ ISS 11A	4/10 ○ ¹¹⁷ ISS 12A.1	8/28 ○ ¹¹⁹ ISS 13A.1		2/04 ○ ¹²¹ ISS 10A						1/06 ○ ¹³³ ISS UF6 MPLM	6/06 ○ ¹³⁶ ISS	
ENDEAVOR	4/19 ● ¹⁰⁰ ISS 6A	11/29 ○ ¹⁰⁸ ISS-UF1 MLPM CREW ROT U/COLLIDE-2 U/PSRDC R/SPASE Y/CAPL-3 F/STARSHINE-2		4/18 ○ ¹¹¹ ISS UF2	8/22 ○ ¹¹³ ISS ULF1 U/CONCAP		1/23 ○ ¹¹⁵ ISS 12A			9/04 ○ ¹²⁵ ISS 1J			2/05 ○ ¹²⁷ ISS IE	6/05 ○ ¹³⁰ ISS 2J/A JEM-EF ELM-ES	11/05 ○ ¹³² ISS 14A PALLET SLP	4/06 ○ ¹³⁵ ISS		

* UNDER REVIEW

△ = Space Science
 □ = Earth Science
 ◇ = Biological and Physical Science

○ = INTERNATIONAL SPACE STATION (ISS)
 ◇ = DOD



Space Shuttle

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- **Contacts**

- NASA Headquarters: Robert Elsbernd, Code MV, Washington D.C.
202-358-4417, relsbern@hq.nasa.gov
- Johnson Space Center: J. J. Conwell, Code MT2, Houston, Texas
281-483-1178, jervy.j.conwell1@jsc.nasa.gov